

I CLAIM:

1. A computer program product comprising a computer program operable to control a master computer to scan a plurality of computer files to identify one or more computer files having one or more predetermined characteristics indicative of a computer file having at least some specified content, said computer program comprising:

scan initiating logic operable in response to a scan initiating command to initiate a scan of said plurality of computer files;

scan dividing logic operable to divide said scan into a plurality of tasks;

task issuing logic operable to issue at least some of said plurality of tasks to one or more further computers to be performed by respective ones of said one or more further computers;

task result receiving logic operable to receive from said one or more further computers results of said tasks performed by respective ones of said one or more further computers; and

scan result merging logic responsive to said results of said tasks performed by respective ones of said one or more further computers to identify any of said plurality of computer files having any of said one or more predetermined characteristics to provide a merged scan result.

2. A computer program product as claimed in claim 1, wherein said one or more predetermined characteristics include a computer file containing an specified computer program.

3. A computer program product as claimed in claim 2, wherein said specified computer program is a computer virus, worm or Trojan.

4. A computer program product as claimed in claim 1, wherein said one or more predetermined characteristics include a computer file containing content to be banned, redirected or quarantined.

5. A computer program product as claimed in claim 1, wherein said plurality of computer files comprise computer files stored on one or more networked data storage devices.

5 6. A computer program product as claimed in claim 1, wherein said plurality of computer files comprise received and sent messages.

7. A computer program product as claimed in claim 1, wherein said plurality of computer files comprise data transmission streams.

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8. A computer program product as claimed in claim 1, wherein said plurality of computer files are stored remotely from said master computer.

9. A computer program product as claimed in claim 1, further comprising task performing logic such that said master computer may also perform one or more of said tasks.

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10. A computer program product as claimed in claim 9, wherein said scan dividing logic identifies high priority tasks with said high priority tasks being performed by said task performing logic of said master computer.

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11. A computer program product as claimed in claim 1, further comprising task monitoring logic operable to monitor proper execution of said tasks by said one or more further computers.

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12. A computer program product as claimed in claim 11, wherein said task monitoring logic is operable to poll said one or more further computers for information regarding a processing status of a task being performed by a respective further computer.

13. A computer program product as claimed in claim 11, wherein said task monitoring logic is operable to detect if a task has been pending with a further computer for more than a predetermined time and if so reissuing said task to another computer.

- 5 14. A computer program product as claimed in claim 13, wherein if a task has been pending with said further computer for more than a predetermined time, then one or more of:
further tasks are not issued to said further computer; and
a diagnostic process is initiated.

10 15. A computer program product as claimed in claim 1, wherein said one or more further computers include a local further computer connected to a system bus of said master computer.

- 15 16. A computer program product comprising a computer program operable to control a computer to scan a plurality of computer files to identify one or more computer files having one or more predetermined characteristics indicative of a computer file having at least some specified content, said computer program comprising:
task receiving logic operable to receive a task request from a master computer
20 specifying a portion of a larger scan operation;
task performing logic operable to perform said portion of a larger scan operation;
and
result reporting logic operable to report a result of said portion of a larger scan operation to said master computer.

25 17. A computer program product as claimed in claim 16, wherein said one or more predetermined characteristics include a computer file containing an specified computer program.

- 30 18. A computer program product as claimed in claim 17, wherein said specified computer program is a computer virus or worm.

19. A computer program product as claimed in claim 16, wherein said one or more predetermined characteristics include a computer file containing content to be banned, redirected or quarantined.

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20. A computer program product as claimed in claim 16, wherein said plurality of computer files comprise computer files stored on one or more networked data storage devices.

10 21. A computer program product as claimed in claim 16, wherein said plurality of computer files comprise received and sent messages.

22. A computer program product as claimed in claim 16, wherein said plurality of computer files comprise network data traffic.

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23. A computer program product as claimed in claim 16, further comprising one or more of:

status reporting logic responsive to a poll request from said master computer to report a status of processing of said task;

20 availability notifying logic operative to notify said master computer of availability to perform said tasks; and

updating status logic operative to notify said master computer of an update status level.

25 24. A method of controlling a master computer to scan a plurality of computer files to identify one or more computer files having one or more predetermined characteristics indicative of a computer file having at least some specified content, said method comprising the steps of:

30 in response to a scan initiating command, initiating a scan of said plurality of computer files;

dividing said scan into a plurality of tasks;

issuing at least some of said plurality of tasks to one or more further computers to be performed by respective ones of said one or more further computers;

receiving from said one or more further computers results of said tasks performed by respective ones of said one or more further computers; and

in response to said results of said tasks performed by respective ones of said one or more further computers, identifying any of said plurality of computer files having any of said one or more predetermined characteristics to provide a merged scan result.

25. A method as claimed in claim 24, wherein said one or more predetermined characteristics include a computer file containing an specified computer program.

26. A method as claimed in claim 25, wherein said specified computer program is a computer virus, worm or Trojan.

27. A method as claimed in claim 24, wherein said one or more predetermined characteristics include a computer file containing content to be banned, redirected or quarantined.

28. A method as claimed in claim 24, wherein said plurality of computer files comprise computer files stored on one or more networked data storage devices.

29. A method as claimed in claim 24, wherein said plurality of computer files comprise received and sent messages.

30. A method as claimed in claim 24, wherein said plurality of computer files comprise network data traffic.

31. A method as claimed in claim 24, wherein said plurality of computer files are stored remotely from said master computer.

32. A method as claimed in claim 24, wherein said master computer may also performs one or more of said tasks.

33. A method as claimed in claim 32, wherein said step of dividing identifies high priority tasks with said high priority tasks being performed by said master computer.

34. A method as claimed in claim 24, further comprising the step of said master computer monitoring proper execution of said tasks by said one or more further computers.

35. A method as claimed in claim 34, wherein said monitoring includes polling said one or more further computers for information regarding a processing status of a task being performed by a respective further computer.

36. A method as claimed in claim 34, wherein monitoring includes detecting if a task has been pending with a further computer for more than a predetermined time and if so reissuing said task to another computer.

37. A method as claimed in claim 36, wherein if a task has been pending with said further computer for more than a predetermined time, containing content to be banned, redirected or quarantined.

38. A method as claimed in claim 24, wherein said one or more further computers include a local further computer connected to a system bus of said master computer.

39. A method of controlling a computer to scan a plurality of computer files to identify one or more computer files having one or more predetermined characteristics indicative of a computer file having at least some specified content, said method comprising the steps of:

receiving a task request from a master computer specifying a portion of a larger scan operation;

performing said portion of a larger scan operation; and
reporting a result of said portion of a larger scan operation to said master
computer.

5 40. A method as claimed in claim 339, wherein said one or more predetermined
characteristics include a computer file containing an specified computer program.

41. A method as claimed in claim 40, wherein said specified computer program is a
computer virus or worm.

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42. A method as claimed in claim 39, wherein said one or more predetermined
characteristics include a computer file containing content to be banned, redirected or
quarantined.

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43. A method as claimed in claim 39, wherein said plurality of computer files
comprise computer files stored on one or more networked data storage devices.

44. A method as claimed in claim 39, wherein said plurality of computer files
comprise received and sent messages.

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45. A method as claimed in claim 39, further comprising one or more of:
in response to a poll request from said master computer, reporting a status of
processing of said task;

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notifying said master computer of availability to perform said tasks; and
notifying said master computer of an update status level.

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46. Apparatus including a master computer for scanning a plurality of computer files
to identify one or more computer files having one or more predetermined characteristics
indicative of a computer file having at least some specified content, said apparatus
comprising:

a scan initiator operable in response to a scan initiating command to initiate a scan of said plurality of computer files;

a scan divider operable to divide said scan into a plurality of tasks;

a task issuer operable to issue at least some of said plurality of tasks to one or more further computers to be performed by respective ones of said one or more further computers;

a task result receiver operable to receive from said one or more further computers results of said tasks performed by respective ones of said one or more further computers; and

a scan result merging processor responsive to said results of said tasks performed by respective ones of said one or more further computers to identify any of said plurality of computer files having any of said one or more predetermined characteristics to provide a merged scan result.

47. Apparatus as claimed in claim 46, wherein said one or more predetermined characteristics include a computer file containing an specified computer program.

48. Apparatus as claimed in claim 47, wherein said specified computer program is a computer virus, worm or Trojan.

49. Apparatus as claimed in claim 46, wherein said one or more predetermined characteristics include a computer file containing content to be banned, redirected or quarantined.

50. Apparatus as claimed in claim 46, wherein said plurality of computer files comprise computer files stored on one or more networked data storage devices.

51. Apparatus as claimed in claim 46, wherein said plurality of computer files comprise received and sent messages.

52. Apparatus as claimed in claim 46, wherein said plurality of computer files are stored remotely from said master computer.

53. Apparatus as claimed in claim 46, further comprising a task performer such that said master computer may also perform one or more of said tasks.

54. Apparatus as claimed in claim 53, wherein said scan divider identifies high priority tasks with said high priority tasks being performed by said task performer of said master computer.

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55. Apparatus as claimed in claim 46, further comprising a task monitor operable to monitor proper execution of said tasks by said one or more further computers.

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56. Apparatus as claimed in claim 55, wherein said task monitor is operable to poll said one or more further computers for information regarding a processing status of a task being performed by a respective further computer.

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57. Apparatus as claimed in claim 55, wherein said task monitor is operable to detect if a task has been pending with a further computer for more than a predetermined time and if so reissuing said task to another computer.

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58. Apparatus as claimed in claim 57, wherein if a task has been pending with said further computer for more than a predetermined time, containing content to be banned, redirected or quarantined.

59. Apparatus as claimed in claim 46, wherein said one or more further computers include a local further computer connected to a system bus of said master computer.

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60. Apparatus for control a master computer to scan a plurality of computer files to identify one or more computer files having one or more predetermined characteristics

indicative of a computer file having at least some specified content, said apparatus comprising:

a task receiver operable to receive a task request from a master computer specifying a portion of a larger scan operation;

- 5 a task performer operable to perform said portion of a larger scan operation; and
a result reporter operable to report a result of said portion of a larger scan operation to said master computer.

61. Apparatus as claimed in claim 60, wherein said one or more predetermined
10 characteristics include a computer file containing an specified computer program.

62. Apparatus as claimed in claim 61, wherein said specified computer program is a computer virus or worm.

63. Apparatus as claimed in claim 60, wherein said one or more predetermined
15 characteristics include a computer file containing content to be banned, redirected or quarantined.

64. Apparatus as claimed in claim 60, wherein said plurality of computer files
20 comprise computer files stored on one or more networked data storage devices.

65. Apparatus as claimed in claim 60, wherein said plurality of computer files comprise received and sent messages.

25 66. Apparatus as claimed in claim 60, further comprising one or more of:
a status reporter responsive to a poll request from said master computer to report a status of processing of said task;
an availability notifier operative to notify said master computer of availability to perform said tasks; and
30 an update controller operative to notify said master computer of an update status level.